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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/628,272

07/29/2003

Chu-Chai Hong

BHT-3111-348

4720

7590

05/16/2006

BRUCE H. TROXELL

SUITE 1404

5205 LEESBURG PIKE

FALLS CHURCH, VA 22041

EXAMINER

TRAN, TUAN A

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/628,272	<b>Applicant(s)</b> HONG, CHU-CHAI	
	<b>Examiner</b> Tuan A. Tran	<b>Art Unit</b> 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5 and 7-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyer et al. (6,978,163) in view of Banh et al. (6,526,294) and Yamaguchi et al. (2005/0085276).

Regarding claim 1, Dyer discloses a Bluetooth hands-free kit structure (See fig. 10), comprising: a Bluetooth earphone 310 (See fig. 9), whose interior circuit includes a Bluetooth module, an antenna, a battery, an earpiece 985, a microphone 990, a first connecting member 975, and a voice decode (wireless earphone or headset is widely known in the art to include voice decoder in order to reproduce received RF signal into sounds), which can proceed with radio signal transmission to a corresponding Bluetooth chip constructed on mobile phone (See fig. 9 and col. 1 lines 11-19, col. 5 lines 14-47); a stand (See fig. 10), whose interior circuit includes a second connecting member 955, a power connecting member 930, a DC convert circuit 910, and a voltage regulator (charger is widely known in the art to include voltage regulator in order to provide stable and correct charging voltage such as 3.7V or 5V to devices to be charged from the external power supply of 12V such as vehicle battery), wherein the stand and the

Bluetooth earphone form an electrical connection through the first connecting member 975 and the second connecting member 955 to provide power and charging while transmitting (See figs. 9-10 and col. 5 lines 14-64). However, Dyer does not explicitly mention that the Bluetooth earphone includes a voltage regulator, the stand includes an audio output amplification circuit, and an integration of audio output apparatus including a fourth connecting member and audio output device (speaker) wherein the fourth connecting member of the apparatus is connected with a third connecting member of the stand via wired interface so that vocal signals of the stand can be regulated and magnified by ways of the audio output device (speaker). Banh teaches a wireless earphone comprising a voltage regulator 38 (See figs. 1-2 and col. 2 lines 40-54, col. 4 lines 8-40). Yamaguchi teaches a mobile phone cradle (See fig. 1) comprising an audio output amplification circuit 16 wherein the amplification circuit including a third connecting member connected with a fourth connecting member of an integration of audio output apparatus including audio output device (speaker) 13, 14 so that vocal signals of the stand can be regulated and magnified by ways of the audio output device (speaker) (See figs. 1-2, 16 and page 3 [0041], page 5 [0084]). Since both Dyer and Yamaguchi teach about charger holder for wireless electronic devices; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Yamaguchi in configuring the stand, as disclosed by Dyer, with the audio output amplification circuit as well as the audio output apparatus for the advantage of allowing users to conduct voice communications while charging devices such as headset and/or its associated handset. Also, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Banh in configuring the earphone with a voltage regulator for the advantage of providing correct and stable charging voltage.

Regarding claim 2, Dyer & Banh & Yamaguchi disclose as cited in claim 1. However, they do not mention that the earphone or the stand includes an echo cancellation circuit. Since Official Notice taken by the Examiner cites that earphone (headset) or stand (holder or cradle) comprises echo canceller is common in the art; therefore, it would have been obvious to one skilled in the art to configure the earphone or the stand with an echo canceller for the advantage of eliminating noise to produce better sound quality.

Regarding claims 3 and 5, Dyer & Banh & Yamaguchi disclose as cited in claim 1. However, they do not mention that the third connecting member is a socket and the fourth connecting member is a plug. Since socket and plug are well known types of connectors to connect audio devices with external speakers; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use socket and plug for connection between the stand and external speakers for the advantage of expanding the capability of the system to various types of connector as well as accommodating the designer's intention.

Regarding claim 7, Dyer & Banh & Yamaguchi disclose as cited in claim 1. Banh further discloses the battery is in tandem with a diode protection circuit (See fig. 2).

Regarding claim 8, Dyer & Banh & Yamaguchi disclose as cited in claim 1. Dyer further discloses the interior of the stand includes a charging circuit that can charge the internal battery of the Bluetooth earphone (See fig. 9 and col. 5 lines 14-27).

Regarding claim 9, Dyer & Banh & Yamaguchi disclose as cited in claim 1. Yamaguchi further discloses the audio output device is a loud speaker (See fig. 3 and page 3 [0044]).

Regarding claims 10-11, Dyer & Banh & Yamaguchi disclose as cited in claim 1. Yamaguchi further discloses the audio output amplification circuit comprises a volume regulation circuit and the audio output device is acoustic type muting control system (the speaker can be muted when the volume is set to zero value) (See fig. 11 and page 5 [0073-0076]).

Regarding claims 12-13, Dyer & Banh & Yamaguchi disclose as cited in claim 1. Dyer further discloses the power connecting member 930 is a socket or a contact terminal (See fig. 9).

Regarding claims 14 and 16, Dyer & Banh & Yamaguchi disclose as cited in claim 1. However they do not mention that the first connecting member is a socket and the second connecting member is a plug. Since socket and plug are well known types of connectors; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use socket and plug for connection between the earphone and the stand for the advantage of expanding the capability of the system to various types of connector as well as accommodating the designer's intention.

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Regarding claims 15 and 17, Dyer & Banh & Yamaguchi disclose as cited in claim 1. Dyer further discloses the first and second connecting members 970, 955 are contact terminals (See fig. 9).

2. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyer et al. (6,978,163) in view of Banh et al. (6,526,294) and Yamaguchi et al. (2005/0085276) as applied to claim 1 above, and further in view of Zablocki et al. (6,731,761).

Regarding claims 4 and 6, Dyer & Banh & Yamaguchi disclose as cited in claim 1. However, they do not mention that the third connecting member is a radio transmitter and the fourth connecting member is a radio receiver. Since Dyer further discloses the stand comprises a RF transceiver (See col. 5 lines 38-40) and wireless speaker which comprises radio receiver for receiving transmitted RF signals from a radio transmitter of an audio device and converts the received signals into audio signals is well known in the art as shown by Zablocki (See fig. 3 and col. 4 lines 35-40); therefore, it would have been obvious to one of ordinary skill in the art to connect the stand with wireless speakers through radio transmitter and receiver acted as third and fourth connecting members for the advantage of giving users a higher degree of freedom in positioning the speaker in accordance with their own intentions.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

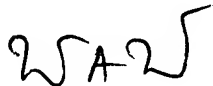
- Griffin et al. (5,898,908) ; Sim et al. (2002/0002035) ; Barber (6,029,072) ;  
Enners et al. (6,788,528); Griffin (5,754,962).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Tran whose telephone number is (571) 272-7858. The examiner can normally be reached on Mon-Fri, 10:00AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan Tran



Matthew D. Anderson  
SPE - 2618